

REMARKS

The Examiner's indication of allowable subject matter of claims 18-20 is noted with appreciation.

Claims 1, 3-9, 13-17 and 21-28 are pending in the application. Claims 10-12 and 18-20 have been cancelled without prejudice or disclaimer. Independent claims 1 and 4 have been amended to include the limitations of allowable claim 18. Claim 13 has been rewritten in independent form including *most* limitations of base claim 4. Claims 13 and 15 have also been amended to better define the claimed invention. New claims 21-28 have been added to provide Applicants with the scope of protection to which they are believed entitled. The amended/new claims find solid support in the original specification and drawing. No new matter has been introduced through the foregoing amendments.

The claim objection is believed overcome in view of the above amendments.

The 35 U.S.C. 103(a) rejection relying on the new references of *Uchida* (U.S. Patent No. 6,526,036) and *Shay* (U.S. Patent Application Publication No. 2003/0120826) is noted. Although Applicants do not necessarily agree with the Examiner's position, amendments have nevertheless been made to specifically avoid the rejections, solely for the purpose of expediting prosecution.

In particular, independent **claims 1 and 4** have been amended to include the limitations of allowable claim 18 (now cancelled). The applied references do not fairly teach or suggest the now claimed invention, and therefore, the 35 U.S.C. 103(a) rejection of independent claims 1 and 4 is believed overcome.

Dependent **claims 3, 5-9, 14, 16-17 and 23-23** are considered patentable at least for the reasons advanced with respect to the respective independent claims.

As to **claim 13**, now in independent form, the applied references, especially *Uchida*, do not fairly teach or suggest the claim feature that "data is communicated between the access point and the given mobile communications device simultaneously on both said downlink and uplink

channels, using said different first and second wireless technologies, respectively.” An advantage of embodiments implementing the invention of claim 13 resides in that QoS (quality of service) can be improved.¹ The prior art discussed in the “Background” section of the instant application cannot allow simultaneous data communication over both the downlink and uplink channels, and hence, cannot provide the disclosed advantage.²

The references, especially *Uchida*, as applied by the Examiner, also fall short of disclosing or suggesting the claim feature. The Examiner’s cited portion of *Uchida*, i.e., column 12 lines 30-40, is reproduced herein below for the Examiner’s convenience of review.

In other words, the mobile station receives control data from the subject base station through the TDMA control channel and transmits a signal to the designated time slot through a up-link TDMA control channel. The position of a received burst is measured in the base station, and the deviation information from the designated position of the time slot is transmitted to the mobile station, and the burst position in the up-link is corrected based on the deviation information. Thus the synchronization is established. At the same time, information concerning channel setting is also exchanged.

The cited portion of *Uchida* describes step ST1 in FIG. 5 when a TDMA control channel is set between a mobile station and a base station.³ In this step, the same wireless technology, i.e., TDMA, is used for both the downlink (i.e., “the mobile station receives control data from the subject base station through the TDMA control channel”) and the uplink (i.e., “up-link TDMA control channel”). In contrast, the claimed invention calls for two different first and second wireless technologies.

In addition, there is no disclosure or suggestion that the control data in the cited portion of *Uchida* is communicated simultaneously over both the downlink and the uplink. Quite the opposite, the name of the *Uchida* wireless technology, i.e., TDMA - time division multiple access, strongly suggests that different time slots are allocated for control data communications over the uplink and the downlink, and hence, such control data communications are not deemed simultaneous.

¹ See Specification at paragraph 0015, the last sentence.

² See Specification at paragraph 0002, the last two sentences.

³ See *Uchida* at column 12 lines 26-30.

Accordingly, Applicants respectfully submit that amended claim 13 is patentable over the art as applied by the Examiner.

Claim 15 depends from claim 13, and is considered patentable at least for the reasons advanced with respect to claim 13. The dependent claim is also patentable on its own merit since the applied references, especially *Uchida*, do not fairly teach or suggest the claim feature that “data is downloaded from the access point to the given mobile communications device simultaneously on both said downlink and uplink channels, using an entire capacity of said downlink channel and any spare capacity of the uplink channel; a remaining capacity of the uplink channel being simultaneously used for uploading data from the given mobile communications device to the access point.” In other words, claim 15 requires

- data downloading on both the downlink and uplink channels simultaneously; and
- the uplink channel is used simultaneously for both data downloading and data uploading.

The references, especially *Uchida*, as applied by the Examiner, fall short of disclosing or suggesting the claim features. The Examiner’s cited portion of *Uchida*, i.e., column 3 lines 39-54, is reproduced herein below for the Examiner’s convenience of review.

A mobile communication system described in claim 8 according to the present invention is provided with a mobile switching center for the management of an asymmetric channel, and the switching center is so designed to be able to instruct at least one base station to change the information quantity in an up-link and a down-link.

A mobile communication system described in claim 9 according to the present invention comprises an asymmetric communication channel, and as soon as the transmission of a large information quantity of data is finished, the data channel for the transmission of a large quantity of data is switched to a data channel for the transmission of a small quantity of data. Thereby, the situation is avoided in which a communication channel for the transmission of a large quantity of data is needlessly occupied while data are not actually transmitted.

A person of ordinary skill in the art would recognize that the cited passage discloses (a) the information quantity of the *Uchida* up-link and down-link can be changed, for example, by (b) lowering the capacity of a large-data-quantity channel after the transmission has been finished. The latter cited paragraph, i.e., (b), appears to disclose that the *Uchida* large-quantity-data transmission is transmitted over the large-data-quantity channel (downlink) only, rather than simultaneously over both downlink and uplink as presently claimed.

In addition, there is no disclosure or suggestion that the *Uchida* small-data-quantity channel (uplink) can be used simultaneously for both data downloading and uploading. It appears to be the Examiner's argument that *Uchida* teaches switching the downlink from a faster wireless technology to a slower wireless technology, and hence, the *Uchida* after said switching will use slower wireless technologies on both downlink and uplink. However, the slower-wireless-technology downlink still handles all data downloading. Thus, even after the switching, the uplink still handles data uploading only, rather than both data downloading and data uploading as presently claimed.

Accordingly, Applicants respectfully submit that claim 15 is patentable over the art as applied by the Examiner.

Claims 21 and 22 include limitations similar to those of claims 13 and 15, respectively, and are believed patentable over the applied art of record for at least the respective reasons presented above with respect to claims 13 and 15.

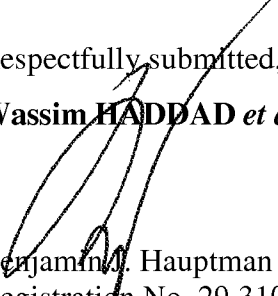
Dependent **claims 25-28** are considered patentable at least for the reasons advanced with respect to claims 13, 15, 21 and 22, respectively.

Each of the Examiner's rejections has been overcome. Accordingly, Applicants respectfully submit that all claims are now in condition for allowance. Early and favorable indication of allowance is courteously solicited.

The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,
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